Datasheet for ABIN2648699

IL-5 ELISA Kit

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Overview

Quantity:	96 tests
Target:	IL-5 (IL5)
Reactivity:	Mouse
Application:	ELISA

Product Details

Sample Type:	Serum, Plasma, Cell Culture Cells
Detection Method:	Colorimetric
Sensitivity:	7 pg/ml
Characteristics:	Mouse interleukin 5 (IL-5), also known as T-cell replacing factor, B-cell growth factor II, eosinophil differentiation factor and eosinophil colony stimulating factor, is a pleiotropic cytokine produced primarily by T cells (1-4). It supports the proliferation and differentiation of mouse, but not human, B cells, and enhances IgM, IgG1, IgA, and IgE secretion. IL-5 chemoattracts and enhances the survival and the effector functions of mature eosinophils and synergizes with various colony stimulating factors to increase eosinophil progenitor production and eosinophil expansion. Because of its diverse effects on eosinophils, IL-5 is strongly implicated in the pathogenesis of asthma and other hypereosinophilic inflammatory conditions (4-6). Mouse IL-5 cDNA encodes a 133 amino acid (aa) residue precursor protein containing a hydrophobic signal peptide that is cleaved to yield a 113 aa residue mature protein. Native mouse IL-5 is a disulfide-linked homodimeric 40-45 kDa glycoprotein with N- and O-linked carbohydrate chains. Mature human IL-5 is approximately 70 % identical at the amino acid level to mouse IL-5. Whereas mouse and human IL-5 are equally active on human cell lines, human IL-5 is much less active than mouse IL-5 in mouse cell assays (1-3). IL-5 is a main regulator of

Product Details

	eosinopoiesis, eosinophil maturation and activation. The elevated production of this cytokine is reported to be related to asthma or hypereosinophilic syndromes

Target Details

Target:	IL-5 (IL5)
Alternative Name:	IL-5 (IL5 Products)
Pathways:	JAK-STAT Signaling, Positive Regulation of Peptide Hormone Secretion, Production of Molecular Mediator of Immune Response, Feeding Behaviour

Application Details

Application Notes:	Optimal working dilution should be determined by the investigator.
Sample Volume:	100 µL
Assay Time:	3.5 h
Plate:	Pre-coated
Protocol:	This assay employs the quantitative sandwich enzyme immunoassay technique. A monoclonal antibody specific for IL-5 has been pre-coated onto a microplate. Standards and samples are pipetted into the wells and any IL-5 present is bound by the immobilized antibody. Following incubation unbound samples are removed during a wash step, and then a detection antibody specific for IL-5 is added to the wells and binds to the combination of capture antibody-IL-5 in sample. Following a wash to remove any unbound combination, and enzyme conjugate is added to the wells. Following incubation and wash steps a substrate is added. A colored product is formed in proportion to the amount of IL-5 present in the sample. The reaction is terminated by addition of acid and absorbance is measured at 450nm. A standard curve is prepared from seven IL-5 standard dilutions and IL-5 sample concentration determined.
Restrictions:	For Research Use only

Handling

Storage:	4 °C